



APR 19 2004

PTO/SB/08A (10-01)

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Substitute for form 1449A/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/646,247
				Filing Date	August 22, 2003
				First Named Inventor	S. Parkin
				Art Unit	2811 1872
				Examiner Name	Unassigned
Sheet	1	of	5	Attorney Docket Number	ARC920030071US1

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
MP		US- 5,390,061	02-14-1995	Nakatani et al.	_____
MP		US- 5,465,185	11-07-1995	Heim et al.	_____
MP		US- 5,640,343	06-17-1997	Gallagher et al.	_____
MP		US- 5,650,958	07-22-1997	Gallagher et al.	_____
MP		US- 5,729,410	03-17-1998	Fontana Jr. et al.	_____
MP		US- 5,764,567	06-09-1998	Parkin	_____
MP		US- 5,841,692	11-24-1998	Gallagher et al.	_____
MP		US- 5,936,293	08-10-1999	Parkin	_____
MP		US- 6,153,320	11-28-2000	Parkin	_____
MP		US- 6,226,160	05-01-2001	Gallagher et al.	_____
MP		US- 6,347,049	02-12-2002	Childress et al.	_____
MP		US- 6,359,289	03-19-2002	Parkin	_____
MP		US- 6,388,268	05-14-2002	Kim et al.	_____
MP		US- 6,392,281	05-21-2002	Tsuge	_____
MP		US- 6,429,497	08-06-2002	Nickel	_____
MP		US- 6,535,365	03-18-2003	Lukaszew et al.	_____
MP		US- 2002/0076940 A1	06-20-2002	Hibino	_____
MP		US- 2002/0097534 A1	07-25-2002	Sun et al.	_____
MP		US- 2002/0097535 A1	07-25-2002	Ito et al.	_____
MP		US- 2002/0097537 A1	07-25-2002	Shimazawa	_____

FOREIGN PATENT DOCUMENTS

Examiner Signature		Date Considered	7/04
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/646,247
				Filing Date	August 22, 2003
				First Named Inventor	S. Parkin
				Art Unit	2811 2811
				Examiner Name	Unassigned
Sheet	2	of	5	Attorney Docket Number	ARC920030071US1

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet

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Application Number	10/646,247
Filing Date	August 22, 2003
First Named Inventor	S. Parkin
Group Art Unit	2811 2821
Examiner Name	Unassigned

Attorney Docket Number ARC920030071US1

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
MP		M. Julliere, "Tunneling Between Ferromagnetic Films", Physics Letters, Vol. 54A, Number 3, September 8, 1975, pp. 225-226.	
MP		R. Meservey et al., "Spin-Polarized Electron Tunneling", Physics Reports (Review Section of Physics Letters) Vol. 238, No. 4, 1994, pp. 173-243.	
MP		J. S. Moodera et al., "Large Magnetoresistance at Room Temperature in Ferromagnetic Thin Film Tunnel Junctions", Physical Review Letters, Vol. 74, No. 16, April 17, 1995, pp. 3273-3276.	
MP		T. Miyazaki et al., "Giant magnetic tunneling effect in Fe/A12O3/Fe junction", Journal of Magnetism and Magnetic Materials , Vol. 139, 1995, pp. L231-L234.	
MP		D. J. Keavney et al., "Perpendicular conductance and magnetic coupling in epitaxial Fe/MgO/Fe(100) trilayers", J. Appl. Phys., Vol. 81, No. 2, January 15, 1997, pp. 795-798.	
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MP		S.S.P. Parkin et al., "Exchange-biased magnetic tunnel junctions and application to nonvolatile magnetic random access memory (invited)", J. of Applied Physics, Vol. 85, No. 8, April 15, 1999, pp. 5828-5833.	
MP		K. Aoshima et al., "Thermal deterioration mechanism of CoFeB/PdPtMn Spin valves", J. of Applied Physics, Vol. 85, No. 8, April 15, 1999, pp. 5042-5044.	
MP		Ph. Mavropoulos et al., "Complex Band Structure and Tunneling through Ferromagnet/Insulator/Ferromagnet Junctions", Phys. Review Letters, Vol. 85, No. 5, July 31, 2000, pp. 1088-1091.	
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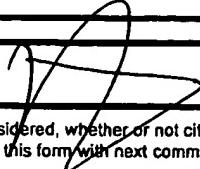
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Application Number	10/646,247
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First Named Inventor	S. Parkin
Group Art Unit	2811 2872
Examiner Name	Unassigned

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MP		X.-F. Han et al., "Fabrication of high-magnetoresistance tunnel junctions using Co75Fe25 ferromagnetic electrodes", Applied Physics Letters, Vol. 77, No. 2, July 10, 2000, pp 283-285.	
MP		H. Xi, "Annealing Effect on Exchange Bias in Ni81Fe19/Cr50Mn50 Bilayers", IEEE Transactions on Magnetics, Vol. 36, No. 5, September 2000, pp. 2644-2646.	
MP		S. Cardoso et al., "High thermal stability tunnel junctions", Journal of Applied Physics, Vol. 87, No. 9, May 1, 2000, pp. 6058-6060.	
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MP		H.L. Meyerheim et al., "Geometrical and Compositional Structure at Metal-Oxide Interfaces: MgO on Fe(001)", Physical Review Letters, Vol. 87, No. 7, August 13, 2001, pp. 076102-1 through 076102-4.	
MP		M. Bowen et al., "Large magnetoresistance in Fe/MgO/FeCo(001) epitaxial tunnel junctions on GaAs(001)", Applied Physics Letters, Vol. 79, No. 11, Sept. 10, 2001, pp. 1655-1657.	
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Application Number	10/646247
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First Named Inventor	S. Parkin
Group Art Unit	2811 2627
Examiner Name	Unassigned

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MP		E. Popova et al., "Epitaxial MgO layer for low-resistance and coupling-free magnetic tunnel junctions", Applied Physics Letters, Vol. 81, No. 6, August 5, 2002, pp. 1035-1037.	
MP		M. Tsunoda et al., "60% magnetoresistance at room temperature in Co-Fe/AI-O/Co-Fe tunnel junctions oxidized with Kr-O ₂ plasma", Appl. Phys. Letters, Vol. 80, No. 17, April 29, 2002, pp. 3135-3137.	
MP		X.-G. Zhang et al., "Effects of the iron-oxide layer in Fe-FeO-MgO-Fe tunneling junctions", Physical Review B, Vol. 68, 2003, pp. 092402-1 through 092402-4.	
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MP		J. Faure-Vincent et al., "High tunnel magnetoresistance in epitaxial Fe/MgO/Fe tunnel junctions", Applied Physics Letters, Vol. 82, No. 25, June 23, 2003, pp. 4507-4509.	
MP		M. Zwierzycki et al., "Spin injection through an Fe/InAs interface", Physical Review B, Vol. 67, 2003, pp. 092401-1 through 092401-4.	
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MP		J. Mathon et al., "Theory of tunneling magnetoresistance of an epitaxial Fe/MgO/Fe (001) junction", Physical Review B, Vol. 63, pp. 220403-1 through 220403-4.	
MP		M. Klaua et al., "Growth, structure, electronic, and magnetic properties of MgO/Fe(001) bilayers and Fe/MgO/Fe(001) trilayers", Physical Review B, Vol. 64, pp.134411-1 through 134411-8.	

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